hp professional line PCs

hp vectra vl410

professional line

global, stable, flexible PCs to reduce lifecycle cost

Stable PCs designed with the ultimate choice in configuration flexibility and performance. Innovative features and tools that let you reduce PC lifecycle cost through comprehensive deployment, management and support solutions.

- **easy to deploy**
  With long product cycles, stable software images, tools and services to centrally deploy your PCs and e-pcs, the HP professional line PCs help you reduce workload and cost of deployment.
- **easy to manage**
  Every professional PC from HP comes with HP Toptools to let you manage HP professional line PCs and non HP PCs plus servers, printers and more. Combining the built-in manageability of HP professional line PCs with HP Toptools enables fewer IT resources to manage more PCs. It complements, and integrates with, other network and service management solutions such as HP Openview and Microsoft® SMS.
- **easy to support**
  HP professional line PCs are serviceable and they help you increase uptime and keep support costs under control as well.

desktop PC

- **PCs optimized for expandability and performance**
  Ideal PCs if you need expandability, performance and legacy support to keep headroom for growth, or simply adapt to your needs.

vl410

- Professional and Cost effective PC for Office / Productivity environments with Celeron processor.

at a glance

new technology highlights

- Intel® Celeron™ 900 MHz, 950MHz, 1000 MHZ or 1100 MHz processor with 128 KB level-2 integrated cache on a 100 MHz front side bus
- 64, 128 or 256 MB SDRAM memory at 133 MHz, expandable to 512 MB maximum on two memory slots
- Choice of 20 GB (5400 rpm) or 40 GB (7200 rpm) **Ultra ATA/100** SMART II hard disk drive
- Choice of graphics solutions for outstanding 2D and 3D performance and visual quality:
  - **NVIDIA® GeForce2 MX® graphics AGP4X** card with 32 MB video memory and dual Head capability
  - Intel 815E integrated graphics Direct AGP
- Optical storage devices:
  - 48X Max-speed CD-ROM drive models
  - HP16X Max-speed IDE DVD-ROM drive
- 16-bit stereo full duplex integrated sound with internal speaker option
- Integrated Intel 10BT/100TX LAN
- Choice of operating systems:
  - Microsoft Windows® 2000 Professional
  - Microsoft Windows® 98 Second Edition
  - Microsoft Windows NT® Workstation 4.0
  - Linux-Mandrake 8.0
  - Windows XP Ready PC Built on Microsoft Windows® 2000 and ready for Windows® XP[1]
- Linux Enabled:
  - Certified by Linuxcare
  - Caldera, Mandrake, RedHat, SuSE, TurboLinux
- Package Desktop (DT)

[1] This PC meets the minimum hardware requirements to run Microsoft® Windows® XP. Hardware drivers, if necessary, are available from hewlett packard upon the release of Windows® XP.

pc system features

package	▪ Desktop (5 shelves, 4 slots) ▪ Easy access for quick upgrade or service: instant opening, screwless I/O release, easy extraction of drive trays
processor	▪ Intel® Celeron™ 900 MHz , 950 MHz, 1000 MHz or 1100 MHz with 100 MHz bus speed
chipset	▪ Intel 815E chipset with 100 system bus, includes Advanced Configuration and Power Management (ACPI)
cache	▪ 128 KB level-2 integrated cache
memory	▪ 64, 128 or 256 MB 133 MHz Synchronous DRAM (non-ECC) standard (PC 133 specification): - Expandable to 512 MB through two memory sockets - Auto-detection of memory modules via serial presence detect (SPD)
hard disk drive	▪ Choice of hard disk drive technologies: - 20.0 GB (5400 rpm) or 40.0 GB (7200 rpm) Ultra ATA/100 hard disk drive ➢ SMART II (self-monitoring analysis and reporting technology) Ultra ATA 100 interface ➢ Ultra ATA 100 interface
hard disk controller	▪ PCI Bus Master Ultra ATA controller - Support for Ultra ATA/100, PIO (up to Mode 4), DMA Mode 2, and Ultra DMA Mode - Up to four Fast-IDE devices supported including two hard disk drives and two ATAPI devices (CD-ROM drive, DVD-ROM drive–or any ATAPI device)
floppy disk drive	▪ Third-height, 3.5-inch, 1.44 MB floppy disk drive preinstalled
optical storage	▪ HP 48X Max-speed IDE CD-ROM drive ▪ HP16X Max-speed IDE DVD-ROM (WinDVD MPEG2 decoding software from InterVideo included)
mass storage shelves	▪ Five shelves: - One front-accessible shelf for standard, third-height, 3.5-inch floppy disk drive preinstalled - Two Front-accessible shelves for standard, half-height, 5.25-inch devices (CD-ROM or DVD drive preinstalled in one shelf on selected models) - Two internal shelves for standard, third-height, 3.5-inch hard disk drives (one preinstalled)

pc system features (continued…)

total expansion slots	▪ Four slots: - Three free PCI slots - One AGP slot, can be used to install a graphics card, or to add an AIMM (Add In Memory Module) to increase performance of the internal video
audio subsystem	▪ Integrated Analog Devices AD1885 AC '97 codec Audio ▪ 16-bit stereo audio recording and playback ▪ Full-duplex audio ▪ 92 dB (A-weighted) signal-to-noise ratio (PC-D-A) ▪ External connectors for microphone, stereo input and stereo output for amplified speakers or 32 ohms headphone ▪ Internal Amplified speaker, or Headphone as option ▪ Audio drivers, including Windows® 2000 Professional, Windows NT® Workstation 4.0, Windows® 98 Second Edition are available from the HP vectra PC support web site at: http://www.hp.com/go/vectrasupport
built-in i/o	▪ One 25-pin parallel port (ECP/EPP bi-directional Centronics supporting IEEE 1284) ▪ Two 9-pin serial ports (16550 UART) with one serial port optional ▪ Two PS/2 connectors for keyboard and mouse (Mini-DIN) ▪ Four Universal Serial Bus (USB) ports for easy reconfiguration, attachment, and hot swapping of external peripherals ▪ One 15-pin VGA connector on system board. Other connectors available when a graphics card is installed. ▪ Audio ports (stereo-in, stereo-out, microphone-in) ▪ One RJ-45 Ethernet port (10/100 TX)
keyboard	▪ Choice of: - Standard PS2 keyboard - Internet USB keyboard featuring instant pc sleep and 4 reprogramable hotkeys
mouse	▪ Choice of: - PS/2 Scrolling mouse - USB scrolling Optical mouse
upgradeability	▪ BIOS in flash EEPROM for convenient BIOS upgrades ▪ Memory upgradeable using SDRAM-133 MHz non-ECC DIMMs ▪ Hard disk storage upgradeable to 2 disks
hp e-diagtools	▪ Available by pressing F8 after system boot ▪ Pre-boot diagnostic ▪ Full system diagnostics ▪ Online BIOS upgrades ▪ e-Diagtools can be launched from Instant Support

nVIDIA GeForce2 MX graphics (not available in Japan)

video graphics	**nVIDIA GeForce2 MX graphics card installed in AGP 4x slot:** ▪ Good 2D/3D graphics performance ▪ Dual-monitor support in a single AGP slot ▪ DVI-I for Digital Flat panel support ▪ 256-bit graphics architecture ▪ 350 MHz RAMDAC ▪ DualHead display capability with one primary VGA and one DVI outputs to drive two monitors independently. DVI to VGA converter included to allow use of two VGA monitors. ▪ DDC2B support for Plug-&-Play detection of monitor ▪ DVD/MPEG2 Playback ▪ Second Generation Transform and Lighting Engines ▪ 32-bit Color ▪ 32-bit Z/Stencil Buffer ▪ Microsoft® DirectX® 8a and OpenGL® Optimizations and Support
graphics memory	▪ 32 MBytes SDRAM (not upgradeable)
available graphics drivers	▪ Windows® 2000 Professional, Windows NT® Workstation 4.0, Windows® 98 Second Edition ▪ Drivers may be preloaded or available from HP desktop PC support web site: http://www.hp.com/go/vectrasupport

maximum resolutions

HP ergonomic modes support these non-interlaced resolutions for Windows® 2000 Professional, Windows NT® Workstation 4.0, and Windows® 98 Second Edition.

resolution on primary head	256 colors (8-bit)	64K colors (16-bit)	16.7M colors (32-bit)
640 x 480	60–240 Hz	60–240 Hz	60–240 Hz
800 x 600	60–240 Hz	60–240 Hz	60–240 Hz
1024 x 768	60–240 Hz	60–240 Hz	60–200 Hz
1152 x 864	60–200 Hz	60–200 Hz	60–170 Hz
1280 x 1024	60–170 Hz	60–170 Hz	60–150 Hz
1600 x 1200	60–120 Hz	60–120 Hz	60–100 Hz
1920 x 1080	60–100 Hz	60–100 Hz	60–85 Hz
1920 x 1200	60–100 Hz	60–100 Hz	60–85 Hz
1920 x 1440	60–85 Hz	60–85 Hz	60–75 Hz
2048 x 1536	60–75 Hz	60–75 Hz	60 Hz

Intel 815E integrated graphics

video graphics	**Intel® 815E integrated graphics chipset:** ▪ basic 2D/3D graphics system ▪ Direct AGP ▪ Dynamic Video Memory technology ▪ 230 MHz RAMDAC ▪ DDC2B support for Plug-&-Play detection of monitor ▪ basic DVD/MPEG2 Playback * *Note:* This integrated graphics solution is automatically deselected when an AGP graphics card is installed in the system.
graphics memory	▪ Local video memory: - 11 MB if the 4 MB graphics performance accelerator is installed (only 7 MB reserved) - 8 to 13 MB according OS and memory size if the GPA is not installed - 11 MB reserved if 64 MB base memory and W98SE - 8 MB reserved if 64 MB base memory and W2000 or NT4 - 11 MB reserved if system memory equal or higher128 MB and W2000 - 13 MB reserved if system memory equal or higher 128 MB and W98SE ▪ Dynamic allocation of system memory from 7 to 13 MB ▪ Enhanced performance module known as graphics performance accelerator GPA module (fits in the AGP slot, 4 Mbytes in size)
available graphics drivers	▪ Windows® 2000 Professional, Windows NT® Workstation 4.0, Windows® 98 Second Edition ▪ Drivers may be preloaded or available from HP Vectra PC support web site: http://www.hp.com/go/vectrasupport

maximum resolutions

HP ergonomic modes support these non-interlaced resolutions for Windows® 2000 Professional, Windows NT® Workstation 4.0, and Windows® 98 Second Edition:

resolutions	**256 colors (8-bit)**	**64K colors (16-bit)**	**16.7M colors (24-bit)**
640 x 480	60–85 Hz	60–85 Hz	60–85 Hz
800 x 600	60–85 Hz	60–85 Hz	60–85 Hz
1024 x 768	60–85 Hz	60–85 Hz	60–85 Hz
1152 x 864	60–85 Hz	60–85 Hz	60–85 Hz
1280 x 1024	60–85 Hz	60–85 Hz	60–85 Hz
1600 x 1200	60–75 Hz		

software

Windows XP Ready PC*

operating system

- **HP supported operating systems:**
  Microsoft Windows® 2000 Professional, Windows NT® Workstation 4.0, Windows® 98 Second Edition
  This PC meets the minimum hardware requirements to run Microsoft Windows XP. Hardware drivers, if necessary, are available from HP support web site upon the release of Windows XP[1].
- **Other certified operating systems:**
  Novell Client certification for Microsoft Windows® 2000 Professional, Windows NT® Workstation 4.0 and Windows® 98, Linux distributions: Caldera, Mandrake, RedHat, SuSE, TurboLinux
- More information about the Linux operating system is available on the HP desktop PC web site:
  http://www.hp.com/desktops/linux

provided software

- **Operating system:**
  Microsoft Windows® 2000 Professional or Windows NT® Workstation 4.0, or Microsoft Windows® 98 Second Edition, depending on model.*
- **Applications:**
  - Microsoft Office XP SBE edition (available in some regions) for companies with less than 400 employees
  - WinDVD MPEG2 decoding software from InterVideo included on DVD model
  - HP Toptools agent
  - HP e-Diagtools hardware diagnostic solution
  - HP Instant Support tuner
  - Every unit includes in the box:
    - HP image creation and recovery CD-ROM (OS installation and hard disk preparation)
    - HP image library and diagnostics CD-ROM (drivers and utilities installation and diagnostics)

* *Note:* For Windows® 98 models (when applicable), Windows NT® Workstation 4.0 and Windows® 2000 models (when applicable): end user must make one-time selection between Windows® 98, Windows® 2000 and Windows NT® Workstation 4.0. If end user desires rejected product(s) after selection is made, end user must acquire and pay for rejected product(s) separately

software available from the web

- HP Toptools device manager http://www.hp.com/toptools
- HP LAN card ready drivers available from HP desktop PC support web site:
  http://www.hp.com/go/vectrasupport

communication features

Ethernet lan interface

- Intel Pro/100 VE Network connection
- 10 Base T and 100 Base-TX physical layer capabilities
- Wake on LAN support: Remote Power On, Remote Power Off, Remote wake-up

remote booting

- Multiprotocol firmware to enable pre-boot capabilities in a networked environment:
  - Included in the BIOS
  - Enables remote automated installation and pre-OS desktop management
  - Supports PXE 2.0 and RPL 2.71 protocols
  - Compliant with today's industry standards: Wired for Management (WfM) 2.0, PCI 2.2

available lan drivers

- Windows® 2000 Professional, Windows NT® Workstation 4.0, Windows® 98 Second Edition
- Latest LAN information and drivers available from HP desktop PC support web site
  http://www.hp.com/go/vectrasupport

lan card ready program

- Tested with leading Ethernet and Token Ring adapters
- Detailed setup instructions and HP-tested drivers for a wide range of LAN cards available on web at:
  http://www.hp.com/go/vectrasupport (select LAN card ready)

[1] This PC meets the minimum hardware requirements to run Microsoft® Windows® XP. Hardware drivers, if necessary, are available from Hewlett-Packard upon the release of Windows® XP.

ergonomics

ergonomic and environmental design

- Video modes supporting non-interlaced resolutions up to 1920 × 1440 at ergonomic refresh rates up to 85Hz
- EPA ENERGY STAR® and Blue Angel certified*
- TUV-GS Mark
- Energy-saving variable-speed fan for temperature control
- Large selection of MPRII—and EPA ENERGY STAR®—certified displays
- CFC-free manufacturing process; single plastic for easy recycling
- HP energy saver
- Less than 5W power consumption in Stand By mode for Windows 2000® and Windows 98®
- Optimized desk-space-saving desktop package
- Control panel keeps user aware of PC status:
  - On/Off switch integrated in the surface to avoid accidental power-off
  - On/Off green LED (blinks in sleep mode)
  - Hard disk drive activity LED

* *Note:* As an ENERGY STAR partner, HP has determined that this product meets the ENERGY STAR guidelines for energy efficiency (on appropriate models)

The environmental profile of the product is available at http://www.hp.com/hpinfo/community/environment/desktop.htm

regulatory compliance and approvals

safety approvals

- IEC 60950: 1991 +A1 +A2 +A3 +A4
- 73/23/EEC Low Voltage Directive amended by Directive 93/68/EEC
- EN 60950: 1992 +A1 +A2 +A3 +A4 +A11
- CSA C22.2 No. 950-M89
- UL 1950 listed
- NOM-019-SCFI-1994
- GB4943-1995
- TÜV -GS Mark
- PSB

electromagnetic compatibility

- FCC Part 15 Class B
- ICES-003 Class B
- European EMC Directive 89/336/EEC amended by Directive 93/68/EEC
- VCCI Class B
- RRL Class B
- AS/NZS3548 Class B
- BSMI CNS13438 Class B
- CISPR22: 1997 / EN55022: 1998
- CISPR24: 1997 / EN55024: 1998
- GB9254-1998
- IEC/EN61000-3-2: 1995 + A14
- IEC/EN61000-3-3: 1995

service and support

warranty*

- A three-year next-business day on-site international hardware warranty and a full range of flexible warranty options and support packs

* *Note:* Europe and North America only

support

24 hours a day, 7 days a week, there is always a way to reach HP support:

- Web technical support including BIOS and driver updates, white papers and additional product information
- HP 3-year free hardware diagnostic phone support (24 hours a day, 7 days a week in U.S. standard business hours in other regions)

For more information, go to http://www.hp.com/go/vectrasupport and click on Assistance to find the telephone number of the HP customer care center near you

pc specifications

physical characteristics

		metric	non-metric
system	dimensions (without keyboard)	W x D x H	
	Desktop	43.5 cm x 43 cm x 13.5 cm	17.1 in. wide x 16.9 in. deep x 5.3 in. high
	weight (without keyboard)		
	Desktop	10 kg	22 lb.
keyboard	dimensions (standard)	46.4 cm x 17.8 cm x 3.3 cm (5.1 cm standing)	18.3 in. wide x 7.0 in. deep x 1.3 in. high (2.0 in. standing)

environmental conditions

		metric	non-metric
temperature	operating	10° to 35° C	50° to 95° F
	non-operating	-40° to 70° C	-40° to 158° F
humidity	operating	15% to 80% RH	15% to 80% RH
	non-operating	8% to 85% RH (noncondensing) at 40°C	8% to 85% RH (noncondensing) at 104°F

electrical characteristics

input voltage	power supply: manually switch-selectable worldwide	100-127 VAC
	input voltage	200-240 VAC
	frequency	50 Hz/60 Hz

acoustic emission

sound level	Idle Typical LpA Pressure	<= 2.3BA (23 dB)
	Idle Typical LwA Power	<= 3.5BA (35 dB)

vl410 accessories

memory

P1536A	HP 64MB (1 x 64MB), SDRAM-133MHz non-ECC DIMM
P1537A	HP 128MB (1 x 128MB), SDRAM-133MHz non-ECC DIMM
P1538A	HP 256MB (1 x 256MB), SDRAM-133MHz non-ECC DIMM

And bulk pack of 10 units P5100A, P5101A, P1502A

hard disk drives

P1542A	HP 80.0GB 7200rpm Ultra ATA/100
P1541A	HP 20.0GB 7200rpm Ultra ATA/100

video Graphics card

P1971A	HP Nvidia GeForce2 GTS 32MB graphics card
P2289A	HP Nvidia GeForce2 MX 32MB dual head graphics card

communication accessories

P1980A	HP 802.11b USB wireless LAN
P1981A	HP 802.11b wireless LAN access point for SMB
F2135A	HP 802.11b wireless LAN access point for Corporate
P7522B/C	HP 3Com fast Etherlink 3C905C-TX PCI NIC
P1979A	HP External USB e-Modem

optical – removal storage

D9444A	HP 48X Max-speed IDE CD-ROM drive
P1544A	HP 16X Max speed IDE DVD-ROM drive
P1543A	HP 16X max speed IDE CD-RW drive
P1983A	HP 250MB ATAPI II internal ZIP drive
P1977A	USB CompactFlash reader
C7993/4/5/6	HP CompactFlash memory card
C4504/5A	HP USB external CD-RW drive (CPSS)

audio and multimedia

P1534A	HP Amplified Speakers 9.6-watt RMS
P1968A	HP headset with microphone
P1967A	HP Internal Speaker in bulk
P1978A	HP external USB Web Camera
P1535A	HP Multimedia Monitor Base (audio speaker in CRT base)

input devices

P5911A	HP Cordless keyboard and mouse kit (US, F, G, UK & ABB option)
C4735B	HP PS2 Windows Keyboard
C4768A	HP USB Internet Keyboard
C4736B	HP PS2 Scrolling Mouse
C4766A	HP USB Scrolling Optical mouse

extension cards

P5099A	HP One serial kit extension

security accessories

D6655C	HP Master Pass Key system kit
D6658B	HP Spare Master Pass Key (x1)
P1550A	HP Locks option 3, set of 50
D6659A	HP Locks option 1, set of 50
D9528A	HP Locks option 2, set of 50
F1645A	HP Kensingston Lock

stable & easy to deploy

software image stability

Adapt your standard software image more quickly and less frequently on HP professional line PCs

image creation and recovery cd-rom	▪ HP professional line PCs come with an image creation and recovery CD-ROM in the box. This CD-ROM allows you to recover your pre-installed software: - Reload the operating system or change your operating system (from Windows® XP to Windows® 2000) - Configure the hard disk drive partitions (FAT 16, FAT 32, or NTFS) - Create HP utility partition for HP e-Diagtools re-installation
image library and diagnostics cd-rom	▪ HP professional line PCs come with an image library and diagnostics CD-ROM in the box. The HP Vectra vl410 can be booted from this CD-ROM in order to run HP e-Diagtools hardware system diagnostics. ▪ The image library and diagnostics CD-ROM also contains HP drivers and system software pre-packaged for unattended install. These packages can be used locally after an operating system installation (e.g. using the image creation and recovery CD-ROM) or distributed with Microsoft scripting tools. An administrator version of image library CD-ROM is available from the HP web with pre-packed drivers for distribution with Microsoft SMS. - To order free the standard HP image library CD-ROM for the HP Vectra vl410, go to: http://www.hp.com/go/vectrasupport - To order free the standard HP image library CD-ROM administrator version for HP Vectra vl410, go to: http://www.hp.com/desktops/vectra/stability/ and check the section "simplify your software image" - To get a complete overview on how to use those CD-ROMs to install/re-install your software go to: - http://www.support.vectra.hp.com/vectrasupport/level4/38vfa182en/38vfa182en.html
long life cycle	▪ 9 months minimum but often more than 12 months.
image stability	▪ Program tightly controls PC H/W revisions, enabling you to create a single software image and avoid changes during the lifecylcle of the PC.
proactive notification	▪ Informs you of the changes by e-mail, letting you decide whether to upgrade your PCs.
customer image testing service	▪ HP offers a fee-based customer image testing service. The service provides consulting on image build and full image analysis prior to PC deployment. The qualified image is thereafter tested at each H/W roll providing the customer with customized notification and if necessary image patching.

More details on HP software stability can be obtained at: http://www.hp.com/desktops/vectra/stability/

For more information on the customer image testing service, please ask your local HP representative.

software image deployment solution

rembo auto deploy	▪ To easily deploy hundreds of HP professional line PCs and laptops simultaneously, HP recommends Rembo Auto Deploy (www.rembo.com). Rembo Auto Deploy is an innovative software deployment solution based on PXE remote boot industry standard. ▪ It offers fully automated hard disk software image installation, with the unique capability to dynamically choose the operating system, the business applications and the end user data parameters you want to use. HP professional line PCs and laptops installed by Rembo Auto Deploy also benefit from a customized recovery CD-ROM that mirrors their deployed hard disk software image. If your software setup is still manual, too slow, and lacking flexibility, Rembo Auto Deploy is your solution of choice. ▪ HP uniquely provides "HP rapid deployment solution" services based on Rembo Auto Deploy to help you re-engineer your IT process of staging new PCs (HP consulting services) or update your existing installed based of PCs (HP outsourcing selective services). ▪ HP currently uses Rembo Auto Deploy to deploy the hard disk software images of its 86,000 employees PCs worldwide and builds its service proficiency on its own IT experience. Rembo Auto Deploy can be also licensed directly from www.rembo.com. Check out what we have done for others and that we could do for you with Rembo Auto Deploy at: http://www.hp.com/hpinfo/newsroom/feature_stories/easyeverything.htm
rembo auto backup	▪ To instantly backup and restore your HP professional line PCs and laptops software, HP recommends Rembo Auto Backup (www.rembo.com). Rembo Auto Backup is a new, innovative and smart software backup and recovery solution, ran locally from a client PC hard disk. Backup operation of PCs can be managed remotely and securely, with incremental backup points, and IT control over end user usage. With Rembo Auto Backup the complete process of backing up and restoring do not require any manual intervention. ▪ HP uniquely provides services based on Rembo Auto Backup to help you re-engineer your IT process of supporting and operating new or existing PCs (those services are part of "HP rapid deployment solution" – see above). HP is currently providing the Rembo Auto Backup solution to its 86,000 worldwide employees' to use as their standard software recovery method, and build its service proficiency on its own IT experience. Rembo Auto Backup can also be licensed directly from www.rembo.com. Check out what we have done for others and that we could do for you with Rembo Auto Backup at: http://www.hp.com/hpinfo/newsroom/feature_stories/easyeverything.htm
pc personality migration solution	▪ HP provides services to help customers migrate user data and settings from their current PC to the new PC. At the heart of it is a powerful industry standard tool that allows a quick and effective migration leading to a faster deployment, productivity enhancements and end-user satisfaction. It is possible to migrate settings across two Microsoft operating systems and even across two versions of Microsoft office. All major standard applications are supported while custom development is used to port customer internal applications. For more details please ask your HP representative.

easy to manage

HP professional line PCs with HP Toptools provide the inventory information you need, and the most efficient way to decrease desk-side visits.

inventory management	**Remote and central inventory** ▪ Auto-discovery of devices ▪ Automated collection of inventory ▪ Inventory database which allows for creation of custom queries & reports by device type and group ▪ PC search and selection ▪ Standard reports (including asset location, configuration) ▪ Report of Microsoft Windows® 2000 Professional and Windows XP ready PCs (this report includes PCs that match the minimum hardware requirements and are certified) ▪ Access to detailed configuration information ▪ Customizable asset string ▪ Support for larger environments (up to 35,000 nodes per device manager server)
configuration management	**Remote boot control** ▪ Scheduled system reboot ▪ Scheduled system power-off ▪ Scheduled system power-on **Remote and central system software updates** ▪ HP Toptools agent deployment and update (agent deployment is only available with Windows NT® Workstation 4.0, Windows® 2000 Professional or Windows XP, within the same Windows NT® domain) ▪ BIOS update ▪ Drivers update (video, hard disk drive, and LAN card) ▪ Drivers, BIOS & utilites revision management ▪ Selected HP Laserjet printers installation ▪ Hardware diagnostics deployment and update (HP e-Diagtools) **File importing/password administration** ▪ Third-party trap import/configuration ▪ IP/MAC address file importing ▪ Enhanced HP Toptools user password administration
compliance with industry standards	**Desktop Management Interface (DMI)** ▪ Provided with Toptools agent for Windows® 9x and Windows NT® Workstation 4.0 models. HP professional line PCs have the most comprehensive DMI implementation in the industry: - DMI 2.0s compliant. - HP DMI instrumentation for PC system information, monitor, LAN cards, security, devices, drivers, bios, - end-user information and more ... - Support for all DMI management applications including Intel LANDesk, McAfee ZAC and more... ▪ HP Toptools can uniquely: - Power on DMI on HP professional line PCs and non-HP PCs - Read DMI information from HP professional line PCs and non-HP PCs - Report DMI alerts from HP professional line PCs and non-HP PCs **Windows® Management Interface (WMI)** ▪ Provided with Toptools agent for Windows® 2000 and Windows XP models. HP professional line PCs have the industry leading WMI implementation - Full WMI instrumentation - Common Toptools agent and WMI instrumentation across Vectra, Omnibook and e-pc. ▪ First to implement WMI instrumentation for Intel® IPSEC LAN card adaptors, HP Toptools can uniquely:- - Power on WMI on HP professional line PCs and non-HP PCs - Read WMI information from HP professional line PCs and non-HP PCs

easy to manage (continued…)

	Wired for Management (WfM) ▪ HP professional line PCs are WfM 2.0 ready: - Provide easy remote power-on (RPO/Power on Lan), remote power-off, and remote reboot. ▪ HP professional line PCs are PXE 2.0 ready: - Provide easy Windows 2000 Workstation software deployment with Windows® 2000 remote installation service **Section 508/Accessibility** ▪ Toptools WMI agent is compatible with Windows 2000 Narrator software
performance management/ alerts	▪ Resource bottleneck analysis ▪ System Performance Advisor ▪ CPU, memory, and disk I/O performance monitoring and trend analysis for Windows NT® Workstation 4.0, Windows® 2000, and Windows® 98 Second Edition systems ▪ PC remote control (Symantec pcANYWHERE trial version) ▪ Custom reports and tables ▪ Enhanced notification actions and action triggers ▪ Most frequent alerts report ▪ Enhanced action-on-alerts via email and paging (paging available in US) ▪ Integration with Instant Support to provide class issues alert and report
hp toptools bridges	▪ The HP Toptools bridges enable full integration with complementary applications. Bridges are available with the following applications: - HP Openview NNM (Windows NT® Workstation 4.0) - HP Openview NNM (HP-UX) - HP Openview NNM (Solaris) - Microsoft SMS 2.0/2.01 - IBM Tivoli NetView (Windows NT® Workstation 4.0) - IBM Tivoli Enterprise Management (Windows NT® Workstation 4.0, HP-UX, Solaris) - Computer Associates Unicenter TNG (Windows NT® Workstation 4.0) - For more information about HP Toptools value pack and HP Toptools bridges, go to: http://www.hp.com/go/toptools

More details on HP professional line PCs manageability and HP Toptools can be obtained at:
http://www.hp.com/go/pcmanageability

easy to support

HP professional line PCs are easy to diagnose, troubleshoot and service, greatly empowering your help desk resources and providing a better user experience.

fault management	**Fault diagnostics** ▪ HP e-Diagtools (local and remote) ▪ On-line video and LAN cards (3Com, Intel, Matrox) **Remote and local alert reporting** ▪ Power-On Self-Test (POST) ▪ Chassis intrusion detection ▪ IDE hard disk drive SMART failure warning **Resources monitoring** ▪ CPU ▪ Memory ▪ Hard disk drives ▪ Networking card (requires SNMP services to be installed)
e-diagtools	**HP e-Diagtools hardware diagnostics solution** ▪ Provides preboot diagnostics, system configuration diagnostics and a complete test suite of the system hardware components ▪ Any error found by e-Diagtools can be transformed into a sound signal emitted by the pre-boot diagnostic chip and sent over a phone line to your HP support provider for immediate troubleshooting ▪ Immediate troubleshooting of e-Diagtools error codes can also be accessed manually or automatically (through HP virtual call assistant) from http://www.hp.com/desktops/diagtools ▪ Test results and system configuration are stored in a support ticket file for further access from your HP support provider if necessary ▪ e-Diagtools allows the user to email the support ticket to an HP support provider (in cases where the user's pc can access the web) ▪ e-Diagtools can be remotely launched by HP Toptools device management software (requires HP Toptools agent on your system) or HP instant support web portal or on HP support specialist request ▪ e-Diagtools allows the user to update the system bios via their internet connection (in cases where the user's pc can access the web)
ease of setup and servicing	**Highly serviceable packages—easy to open, repair, and expand, with built-in intuitiveness** ▪ Features include: - Cover—tool-free, intuitive removal - System board—direct access to upgradeable parts (memory, microprocessor, I/O cards) - Hard disk drive—easy removal, direct access, tool-free removal of hard disk drive cage - Front-accessible drives—direct access, easy removal of tray - Embedded repair instruction labels - Easy upgrade of I/O cards—tool-free single I/O locker - No mounting accessories needed when installing accessory devices - Color-coded connectors for simplified PC assembly ▪ Hassle-free security with HP master pass key system—chassis lock with configurable master setting (optional) ▪ BIOS stored in flash EEPROM for fast and easy upgrades ▪ Setup program in flash ROM ▪ Automatic detection of major components at power-on ▪ Power-On Self-Test (POST) displays start up errors, suggests solutions ▪ All models are local area network (LAN) ready for easy integration into the network ▪ HP e-Diagtools: fast, easy-to-use hardware diagnostics for quick system troubleshooting ▪ LAN hardware diagnostics
instant support	HP instant support automates and speeds up the resolution of computing problems, freeing you from time-consuming diagnostic chores and allowing you to focus on more important business activities. Featuring web-based diagnosis,resolution capabilities, and comunication with HP support providers via active messaging, HP instant support can be personalized to meet your business needs and deliver the support experience that works for you. For more information, go to: http://www.hp.com/go/instantsupport

More details on HP professional line PCs supportability can be obtained at: http://www.hp.com/go/pcsupportability

security ready

HP professional line PCs reduce security risks.

physical security	▪ Boot Block BIOS Flash hardware protected ▪ HP physical security to protect PCs from theft: - Optional HP master pass key lock (lock must be purchased separately) - Kensington lock provision - Two BIOS-level passwords - Chassis Intrusion detection
security management	**Remote and central system boot configuration** ▪ Enable/Disable start from hard disk ▪ Enable/Disable start from floppy disk ▪ Enable/Disable start from CD-ROM drive ▪ Enable/Disable start from network drive ▪ Enable/Disable Remote Power On and Wake on LAN **Remote and central security configuration** ▪ Enable/Disable floppy disk drive ▪ Enable/Disable writing on floppy disk drive ▪ Enable/Disable CD-ROM, DVD-ROM, CD-RW drives (requires Windows® 2000 Professional or Windows NT® Workstation 4.0) ▪ Enable/Disable serial and parallel ports ▪ Enable/Disable USB ports **Remote and central security control** ▪ Complete system lock ▪ System protection (power-on and reset buttons) Remote and central security management ▪ Enable/Disable start with keyboard locked ▪ System administrator and user password change ▪ Enable/Disable user password on power-on ▪ System SNMP community password change ▪ Report of PCs not password protected

More details on HP professional line PCs security can be obtained at: http://www.hp.com/go/pcsecurity

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